

UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH DAKOTA
SOUTHERN DIVISION

SIOUX STEEL COMPANY, a South
Dakota corporation,

Civ. 15-4136

Plaintiff,

vs.

**BRIEF IN SUPPORT OF MOTION FOR
SUMMARY JUDGMENT**

KC ENGINEERING, P.C., an Iowa
corporation,

Defendant.

Defendant KC Engineering, P.C. (“KC Engineering”), by and through its undersigned attorneys of record, respectfully submits this brief in support of its motion for summary judgment. Because it is undisputed that Plaintiff Sioux Steel Company (“Sioux Steel”) mistakenly designed the hopper bin at issue, its negligence is more than slight, and KC Engineering is entitled to judgment as a matter of law. Accordingly, KC Engineering’s motion for summary judgment should be granted, and Sioux Steel’s Complaint should be dismissed with prejudice.

BACKGROUND

Sioux Steel designs, manufactures and sells hopper silos for handling and storing grain commodities. (Doc. 17, ¶ 1 (“Amended Complaint”). Sioux Steel manufactured and sold a 30’ Diameter Hopper Cone Assembly and silo bin (“the Hopper Bin”) to Agropecuaria El Avion (“Agropecuaria”), which was installed at a Agropecuaria plant in Tepic, Mexico. (*Id.*, ¶ 12). The Hopper Bin ultimately failed, resulting in the destruction of the bin and fatal injuries to two Agropecuaria employees. (*Id.*, ¶ 13-14). The structural failure of the Hopper Bin occurred when

its seams separated and catastrophically discharged the contents of the silo. (*Id.*, ¶ 17). Agropecuaria sought damages from Sioux Steel, which subsequently resulted in a settlement agreement between the two parties (“the Settlement Agreement”). (*Id.* at ¶ 26; Tobin Aff., Ex. E). The terms of the Settlement Agreement held that Agropecuaria released Sioux Steel, and all other potential “joint tortfeasors,” from all liability related to the collapse of the Hopper Bin. (*Id.*).

However, on August 27, 2015, Sioux Steel filed this lawsuit against KC Engineering, alleging that KC Engineering was negligent in failing to catch a mistake originally in Sioux Steel’s design of the Hopper Bin; a mistake initially made by a Sioux Steel engineer who used a wrong formula. (Doc. 17, ¶¶ 20-24).

Chad Kramer (“Kramer”), an engineer for Sioux Steel, designed the Hopper Bin that ultimately failed. (Chad Kramer Deposition (“Kramer Depo.”), 9). At the time of its design, the Hopper Bin was an entirely new sort of bin for Sioux Steel meant to expand its product line to compete with others in the industry who manufactured hoppers. (Kramer Depo., 9-10, 29-30). As part of his design plans, Kramer calculated the various loads, forces, and stresses that would be applied on both the vertical and horizontal seams.¹ (Kramer Depo., 17, 18). Kramer also calculated the utilization ratio for the seams, which informs how much of the allowable capacity is utilized. (Kramer Depo., 21). According to Kramer’s own testimony, multiple vertical seams of the Hopper Bin were overstressed:

- Q. So, for example, at the 28-foot diameter it’s my understanding that those vertical seams would be overstressed by 389 percent. Is that how you would read that?
- A. Yes.
- Q. And then at 15 feet those vertical seams are overstressed by 152 percent?

¹ It should be noted that no other engineers at Sioux Steel reviewed or oversaw Kramer’s design of the Hopper Bin. (Kramer Depo., 9, 26).

A. They would be overstressed by 52 percent.

(Kramer Depo., 22).

Where the utilization ratio is above one, there is a problem, which was the case at the 28-foot and 15-foot diameter of the Hopper Bin. (Kramer Depo., 22, 23). Despite these problematic ratios, Kramer did not know or appreciate these numbers until the Hopper Bin had failed. (Kramer Depo., 23). Kramer admitted that, due to these errors, the Hopper Bin should not have gone out:

Q. And you'll agree with me that the hopper bin should not have gone down to Mexico with utilization ratios at those seams of 3.89 and 1.52?

A. Yes. There was a math error. Yes.

Q. And maybe I'm just trying to be too diplomatic, and maybe that's part of our disconnect here. But, I mean, a mistake was made by Sioux Steel in the design of this bin, correct?

A. Yes. I made a mistake, yes.

Q. And that mistake is yours?

A. Yes.

(Kramer Depo., 24).

Specifically, the mistake occurred because Kramer had utilized the wrong formula for calculating the utilization ratios:

Q. Is it a mistake that you put an incorrect formula into one of the cells so that it produced a number with a better utilization ration, or was the mistake that you didn't look at or appreciate what those numbers mean under the utilization ratio?

A. It was a mistake in the formula.

(Kramer Depo., 92-93).

Kramer further admitted that the result of his mathematical errors led to the collapse of the Hopper Bin, which was discovered the day after the failure:

Q. What do you recall?

A. The day after the failure, when they sent pictures and I was able to look at the pictures and immediately drew a conclusion to what I thought was, you know, maybe the failure mode and went into the design and figured

out the math error on the spreadsheet that resulted in the utilization ratios being much higher than what we originally thought they were on those vertical bolted seams.

Q. So you discovered that mathematical error the day after the failure?

A. Yes.

(Kramer Depo., 83-84).

In fact, Kramer admitted that after the incident with the Hopper Bin in Mexico, Sioux Steel made changes to account for the above design errors, specifically modifying the hopper panels, changing the bolt spacing, and increasing the edge distances from the edge of the material to the edge of the bolts.² (Kramer Depo., 24).

Prior to the manufacture and sale of the Hopper Bin, Sioux Steel retained KC Engineering to perform a structural engineering analysis and design review of two hopper cones that Sioux Steel had designed and proposed to be used with its eighteen (18) and thirty (30) foot diameter grain bins. (Kramer Depo., 27-28, 33; Tobin Aff. at Ex. D). As part of that engineering analysis and design review, KC Engineering first ran Sioux Steel's design through a software program. (Kramer Depo., 34-35). The purpose of this analysis and review was to determine some general forces and tensions within the silo and cone but said analysis did not speak to the adequacy of the vertical seams, nor was it meant to. (Kramer Depo., 34-35, 46; Tobin Aff. at Ex. D).

KC Engineering was also to review drawings and calculations provided by Sioux Steel. (Kramer Depo., 33; Exhibit 7). However, Sioux Steel did not provide its calculations to KC Engineering³, even though KC Engineering had asked for them in their proposal:

Q. Did you provide the calculations to KC Engineering?

² Interestingly, Sioux Steel did not have these changes reviewed or vetted by any outside company. (Kramer Depo., 79).

³ While the calculations were not provided to KC Engineering, Sioux Steel did provide drawings that were reviewed. (Deposition of Derek Matthies ("Matthies Depo."), 13).

A. Not that I'm aware of.

(Kramer Depo., 34-35; Exhibit 7 (“KC Engineering will review drawings and calculations provided by Sioux Steel”)).

Q. And maybe I already asked this—and if I did forgive me—but you told me that no calculations were sent to KC Engineering, correct?

A. Correct.

(Kramer Depo., 38).

Q. Well, you'll agree with me that in their proposal, Exhibit 7, they're requesting the calculations?

A. Yes.

(Kramer Depo., 41; Exhibit 7).

Sioux Steel's calculations were necessary in order to know whether what is shown on Sioux Steel's drawings is adequate or not as the drawings cannot be fully reviewed without either reviewing the calculations that were to be provided by Sioux Steel or by doing a complete set of calculations from scratch. The former was specifically included in KC Engineering's proposal in the scope of services; the latter was not. (Jason O'Mara Deposition (“O'Mara Depo.”), 60). Ultimately, Sioux Steel was provided a report from KC Engineering regarding its review of Sioux Steel's design, however, Sioux Steel failed to review the entire report from KC Engineering:

Q. Okay. The 26 pages that KC Engineering included from their file, did you review those when you received the report?

A. Not in depth, no.

(Kramer Depo., 46). Had Sioux Steel read the results, it would have known that KC Engineering did not review any of the vertical seams that were subject to math errors. (Kramer Depo. 46-47). KC Engineering specifically provided information showing which seams they did

and did not review, *i.e.*, spot-checking.⁴ (Kramer Depo., 47). KC Engineering’s decision to spot-check was a direct result of Sioux Steel’s failure to provide its calculations, which it was required to do:

A. Yeah, what I decided to do in the absence of Chad’s calculations to review was to have Derek spot-check some of the connections. This was above and beyond our scope. Spot-checking connections was not part of our scope. This is something that we did in the absence of calculations from Chad to review.

(O’Mara Depo., 48, 61).

The spot-checks that were done by KC Engineering did not show that the reviewed connections were undersigned. (*Id.*). And, again, the report provided by KC Engineering documented what was checked and Sioux Steel “could have looked to see what [was] checked and [what KC Engineering] did not check.” (O’Mara Depo., 50-51).

In its Amended Complaint, Sioux Steel alleges as a “direct and proximate cause” of KC Engineering’s alleged negligence, Sioux Steel has incurred damages for the failure of the Hopper Bin. (Doc. 17, ¶¶ 25-31). Importantly, Sioux Steel does not allege that KC Engineering’s negligence was the “sole” cause of its alleged damages. (*See generally id.*). In fact, when asked who was responsible for the Hopper Bin’s failure in Mexico, Kramer conceded that blame was with both Sioux Steel and KC Engineering:

Q. So you place responsibility for the event in Mexico on whom?

...

A. Ultimately, the design was missed by both people. I mean, I made the mistake. Again, I own up to that. There was a math error in the design spreadsheet. And we sent it out to be vetted, and it didn’t get—it didn’t get caught. So there’s responsibility on both parties.

(Kramer Depo., 88) (emphasis added).

⁴ KC Engineering did review the horizontal connections. (Kramer Depo., 47). Furthermore, Kramer admitted that it was “plain that there [was] no review of the vertical seam” but, because he failed to read the report, he did not know at the time which seams KC Engineering did and did not review. (*Id.*).

Even viewing the facts of this matter in the light most favorable to Sioux Steel, the admissions made by Sioux Steel demonstrate, as a matter of law, that Sioux Steel's negligence in the initial design of the Hopper Bin was more than slight in comparison with any negligence by KC Engineering, such that Sioux Steel's claim of negligence is barred. As such, this Court ought to grant KC Engineering's Motion for Summary Judgment and dismiss Sioux Steel's Complaint with prejudice.

LEGAL STANDARD

Under Federal Rule of Civil Procedure 56(c), a party is entitled to summary judgment when "the pleadings, the discovery, and the disclosure materials on file, and any affidavits show that there is no genuine issue of material fact and that the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). "The nonmoving party is entitled to all reasonable inferences that may be drawn from the evidence but not to inferences that may only be drawn by resorting to speculation." *Culton v. Missouri Dep't of Corr.*, 515 F.3d 828, 830 (8th Cir. 2008) (citing *Williams v. City of Carl Junction, Mo.*, 480 F.3d 871, 873 (8th Cir. 2007)). "A party opposing summary judgment may not rest upon mere allegations or denials contained in the pleadings, but must, by sworn affidavits and other evidence, set forth specific facts showing that there is a genuine issue for trial." *Mehrkens v. Blank*, 556 F.3d 865, 868-69 (8th Cir. 2009) (citation omitted). Only if no reasonable jury could return a verdict for the nonmoving party should a motion for summary judgment be granted. *Burk v. Beene*, 948 F.2d 489, 492 (8th Cir. 1991) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S. Ct. 2505, 2510, 91 L. Ed. 2d 202 (1986)).

ARGUMENT

South Dakota follows a rather unique formulation of comparative negligence. “Where plaintiff’s contributory negligence is more than slight compared to defendant’s negligence, plaintiff is barred from recovery.” *Johnson v. Armfield*, 2003 SD 134, ¶ 10, 672 N.W.2d 478, 481. SDCL 20-9-2 states in part:

In all actions brought to recover damages for injuries to a person or to his property caused by the negligence of another, the fact that the plaintiff may have been guilty of contributory negligence shall not bar a recovery when the contributory negligence of the plaintiff was slight in comparison with the negligence of the defendant, but in such a case, the damages shall be reduced in proportion to plaintiff’s contributory negligence.

“The defense of contributory negligence is applicable in professional negligence cases....” *Dodson v. S. Dakota Dep’t of Human Servs.*, 2005 SD 91, ¶ 8, 703 N.W.2d 353, 356. South Dakota’s comparative negligence standard applies “whenever a plaintiff’s contributory negligence is determined to be small in comparison with defendant’s negligence.” *Crabb v. Wade*, 84 SD 93, 98, 167 N.W.2d 546, 549 (1969). “The comparison is made with the negligence of the defendant, rather than with the ordinarily prudent person.” *Id.* at 97-98. Whether a plaintiff’s contributory negligence is more than slight can be decided as a matter of law. *Schmidt v. Royer*, 1998 S.D. 5, ¶ 34, 574 N.W.2d 618, 627. If the court finds that the facts show beyond any dispute that the plaintiff has committed negligence more than slight, it is appropriate for that court to hold, as a matter of law, for the defendant. *Westover v. E. River Elec. Power Co-op., Inc.*, 488 N.W.2d 892, 896 (S.D. 1992). *See also Starnes v. Stofferahn*, 83 SD 424, 432, 160 N.W.2d 421, 426 (1968) (“Where the evidence establishes that the plaintiff was beyond reasonable dispute guilty of negligence more than slight it is the duty of the court to direct a verdict for the defendant”) (citations omitted).

South Dakota courts have described “slight” as “small of its kind or in amount; scanty; meager.” *Friese v. Gulbrandson*, 69 SD 179, 189, 8 N.W.2d 438, 442 (1943). *See also Nugent v. Quam*, 82 SD 583, 600, 152 N.W.2d 371, 380 (1967) (discussing whether plaintiff’s contributory negligence was more than slight in the following terms: “[It] was not small in amount or of little importance or insignificant or unsubstantial or inconsiderable, that is to say, it was not slight in comparison with the negligence of the defendant.”). Moreover, South Dakota statutory law prohibits apportioning any sort of percentages to the term:

Notwithstanding *Wood vs. City of Crooks*, 559 N.W.2d 558 (SD 1997), the determination of whether the contributory negligence of the plaintiff was slight in comparison with the negligence of the defendant shall be made without disclosing any determination of percentage of plaintiff’s fault by special interrogatory.

SDCL § 20-9-2

Thus, “slight” cannot be defined in terms of percentages, but instead, must be determined “upon the circumstances of the particular case.” *Corey v. Kocer*, 1972, 86 SD 221, 193 N.W.2d 589. *See also Roberts v. Brown*, 36 N.W.2d 665 (S.D. 1949) (“Because of the uncertainty intrinsic in this statute it is apparent that each case must be determined upon the facts presented”). Regardless, South Dakota has, on multiple occasions, determined that a plaintiff’s negligence is so obvious as to preclude recovery as a matter of law.⁵ *See Lovell v. Oahe Elec. Co-op.*, 382 N.W.2d 396 (S.D. 1986) (in action against defendant coop where plaintiff was pulling a pipe and rod from a well when it came in contact with a transmission line that was constructed across plaintiff’s farm, court found, as a matter of law, plaintiff’s negligence was

⁵ South Dakota has repeatedly found plaintiff’s negligence more than slight in the context of traffic accidents. *See Nugent v. Quam*, 82 S.D. 583, 600, 152 N.W.2d 371, 380 (1967) (negligence of pedestrian who did not keep a constant lookout for vehicular traffic was more than slight in comparison to negligence of defendant motorist with respect to lookout, speed, and control prior to time automobile struck pedestrian); *Kundert v. B. F. Goodrich Co.*, 70 S.D. 464, 466, 18 N.W.2d 786, 787 (1945) (where there was a car accident and plaintiff failed to stop and look for cars before entering the intersection, the court found plaintiff’s negligence more than slight); *Engel v. Stock*, 88 SD 579, 225 N.W.2d 872 (1975) (where plaintiff was driving over the center line and collided with defendant’s automobile, which was stopped entirely on its own side of the road in the process of being back from a driveway, plaintiff was guilty of more than slight contributory negligence).

more than slight); *Lindholm v. BMW of N. Am., LLC*, 2016 WL 4399306, at *11 (D.S.D. Aug. 17, 2016) (summary judgment granted in favor of car company where plaintiff had used a car jack provided with car, which was only intended for changing tires, to lift car while making repairs and car subsequently fell on plaintiff); *Starnes v. Stofferahn*, 83 S.D. 424, 160 N.W.2d 421 (1968)(directed verdict where plaintiff was injured as a result of his failure to install shield or guards on a self-unloading wagon); *Wierzbicki v. United States*, 32 F. Supp. 3d 1013 (D.S.D. 2014)(barring plaintiff's recovery for failing to use call light when she decided to make a trip to the bathroom alone). Thus, where a plaintiff's negligence is palpable and objectively apparent, a court ought to find "slight" contributory negligence and, as a result, bar a plaintiff's claims.

Here, the facts, even when viewed in the light most favorable to Sioux Steel, demonstrate that Sioux Steel's negligence in its initial design of the Hopper Bin was more than slight as a matter of law. Sioux Steel's own engineer has admitted that he used the wrong formula in the design of the Hopper Bin, specifically relating to the utilization ratios for the vertical seams. (Kramer Depo., 22-24). It is settled law that Plaintiff "can claim no better version of the facts than he has given in his own testimony." *Dartt v. Berghorst*, 484 N.W.2d 891, 897 (S.D. 1992). Furthermore, Sioux Steel has conceded that the structural failure of the Hopper Bin was a result of a separation of the vertical seams under load pressure and the reason for this failure was because of Sioux Steel's incorrect utilization formulas. (Kramer Depo., 83-84; Doc. 1, ¶ 17-18). Sioux Steel also failed to have any of its other engineers review or oversee Kramer's design of the Hopper Bin. At best, when asked who was responsible for the failure of the Hopper Bin, Kramer stated that both parties had made a mistake and so "there's responsibility on both parties." (Kramer Depo., 88). These are all admissions and concessions that come from the testimony of Sioux Steel's engineer who designed the Hopper Bin.

In an attempt to abdicate all responsibility for its failure to use the correct utilization formula in its initial design, Sioux Steel shifts the focus of its own negligence to KC Engineering. As stated above, whether Sioux Steel's negligence was "slight" is determined by comparing said negligence with the alleged negligence of KC Engineering rather "than with an ordinarily prudent person." *Crabb v. Wade*, 84 SD 93, 98, 167 N.W.2d 546, 549 (1969). The undisputed facts show that KC Engineering was to review the designs and calculations provided by Sioux Steel. (Exhibit 7). Kramer failed to provide KC Engineering with said calculations despite KC Engineering's request. (Kramer Depo., 34-35, 38, 41). Without those calculations, KC Engineering decided to spot check some of the design's connections, which did not happen to include the vertical seams. (O'Mara Depo., 48). After performing its review of Sioux Steel's design, KC Engineering provided Sioux Steel with a 26-page report of the results, which went unread. (Kramer Depo., 46); *see also Siteman v. Woodward-Clyde & Associates, Inc.*, 503 S.W.2d 141 (Mo. App. 1973) (landowner who did not read engineer's report was contributorily negligent). The report clearly indicates that KC Engineering's spot check did not include the vertical seams, which Sioux Steel would have known had it read said report. (Kramer Depo., 47; O'Mara Depo., 50-51).

As a matter of law, Sioux Steel was more than slightly negligent when it used a mistaken formula in the design of the Hopper Bin when compared to any alleged negligence by KC Engineering. SDCL 20-9-2. Sioux Steel was also negligent when it (1) failed to have any of its own reviewing or supervising measures as it relates to the Hopper Bin design; and when it (2) failed to review KC Engineering's report as to what was reviewed, which would have put Sioux Steel on notice that the vertical seams were never spot checked. Moreover, the failure of the Hopper Bin was a direct result of Sioux Steel's mistaken formula relating to the utilization ratios,

which ultimately caused a separation of the vertical seams. Sioux Steel is not absolved of all responsibility by simply alleging that KC Engineering should have caught Sioux Steel's negligence. Sioux Steel is not given complete freedom to negligently create a design and then claim they are absolved by hiring an outside company to review said design. This is further amplified by the fact that Sioux Steel did not provide KC Engineering with any calculations to review nor did Sioux Steel even read KC Engineering's report on what was reviewed.

South Dakota's "slight negligence" standard only requires that Sioux Steel's negligence be more than "small of its kind or in amount; scanty; meager." *Friese v. Gulbrandson*, 69 SD 179, 189, 8 N.W.2d 438, 442 (1943). Here, the undisputed facts demonstrate that Sioux Steel's negligence was more than slight compared to any alleged negligence of KC Engineering as its use of a mistaken formula directly led to the failure of the Hopper Bin, along with all other damages claimed by Sioux Steel.

CONCLUSION

For the foregoing reasons, KC Engineering's motion for summary judgment should be granted, and Sioux Steel's Complaint should be dismissed with prejudice.

Dated this 16th day of March, 2018.

/s/ Michael F. Tobin

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